REMARKS

Claims 1-15 are presented for examination. All claims have been rejected. Claims 1-15 stand rejected as being unpatentable over Thomas *et al.* ("Thomas") United States Patent No. 6,148,336 in view of Schneider *et al.* (Schneider), U.S. Patent No. 6,178,505. There is one independent apparatus claim, namely claim 1. There is one independent method claim, namely claim 13. It is submitted that while claims 2-12 and 14 and 15 provide further distinguishing recitations, the rejections of claims 1 and 13 have issues in common, and that if withdrawal of these rejections is warranted, then the other claims are not met by the art of record.

Paragraph 5 of the Action states that Thomas discloses the invention substantially as claimed. Certainly, this is not the case. However, for the present purposes of examination, Applicants agree that Thomas discloses digital communications having different levels of service. Applicants agree with the Examiner that Thomas does not disclose dynamic creation and removal of filters controlling access to different service levels based at least in part on an admission profile. The missing teaching is intended to be provided by Schneider.

Paragraph 6 of the Action, at page 3, states "Schneider discloses to dynamically create and remove filters controlling access to the different service levels based, at least in part, on an admission profile..." Paragraph 7 states that accordingly, it would have been obvious to anyone of ordinary skill in the art to have incorporated Schneider's teachings into Thomas's network. Applicants traverse all obviousness rejections based on a combination of Thomas and Schneider. It is respectfully submitted that the proposition that Schneider discloses dynamic creation and removal of filters is unsupported by the record. It is respectfully submitted that the teaching for this dynamic

operation comes only from Applicants' specification. Therefore, Schneider cannot serve as a basis for rejection.

Paragraph 6 cites Schneider column 24, lines 15-67. This is cited for the proposition that access filters may be added or deleted utilizing add and delete buttons in a button bar. Additionally, administrators may edit, add, delete, activate or deactivate a particular policy definition. By definition, this is not dynamic operation. It is static operation. As Thomas teaches, and as cited in the action, a particular policy definition is established by an administrator. Once that policy is in place, it is in place irrespective of what signal is being transmitted. Schneider specifically teaches administration of the policies during down time. Applicants specifically recite adding or removing filters dynamically. Adding or removing filters is achieved during operation. Consequently, there is no teaching is Schneider in which to support the proposition that Schneider teaches dynamic operation.

It is also relevant to examine Schneider's text in determining what teachings are supplied by Schneider and what teachings are supplied by Applicants only. The word "dynamic" appears only once in the Schneider text. It is at column 8, line 41 as part of the term, "dynamic tunnels." The dynamic tunnels are created based on current network routing conditions. The word "dynamically" is also used twice. Once is with respect to determining a TCP session, and the second is with respect to assigning a source IP address.

MPEP 2143.03 requires that all claim limitations must be taught or suggested by the prior art. Since there is no teaching of dynamic operation is Schneider, it is submitted that the rejection merits withdrawal.

Paragraph 7 of the rejection at page 3 addresses motivation to combine the Schneider and Thomas references. The Action states that Thomas provides the

motivation to combine by wanting to solve the problem of filtering only when necessary by service providers, citing column 6, lines 34-67. The cited passage states that the Thomas inventors have realized that the current Windsock-2 architecture is potentially dysfunctional when multiple layered service providers are installed." Further in the cited passage, Thomas states that filtering determines which plug-ins are needed and which plug-ins are not. It is respectfully submitted that indeed Thomas provides no motivation for a combination. Thomas solves the problem it addresses, and has no need to be combined with anything, the suggestion that Thomas teaches filtering only when necessary is much too great a generalization. As explicitly stated at lines 35-42, Thomas simply states that ordering among layered service providers is crucial, and redundant filtering of each service provider should be eliminated.

Thomas and Schneider do not address the same technical problem solved by Applicants and therefore cannot fairly be said to provide teachings toward solving the technical solution. Thomas, as discussed above and indeed as stated in the very first sentence of the specification, addresses operability of filtering for layered network service providers. Thomas teaches the solution of (column 5, lines 46-53) sorting plug-ins of network-service providers into execution order according to a filter-class identifier. Schneider at column 5, line 66 to column 6, line 6, teaches providing scalable filters providing only so much authentication and encryption security as is required for a given user. As stated at column 6, lines 38-52, an access request for a resource will not be forwarded by the access filter unless the trust level established by the user meets a required level. Neither Thomas nor Schneider make any suggestion of changing filtering during operation.

In total contradistinction, at page 5, lines 6-10 Applicants explain that they will dynamically create and remove admission filters at least in part on an admissions profile that must be triggered. The triggering results in dynamic operation. The dynamic

operation is explained in part, in Applicants' specification at page 12, line 18 through page 14 line 10. In the embodiment in Figure 2, a controller 206 is illustrated controlling dynamic provision of filters 210 to a signal path. I/O drivers 202 and 208 provide the physical interface between a network device 200 and a client network and a core network. Data packets from a communications network delivered to filter 212 and classifier 214, which are employed to identify incoming data traffic with corresponding admission criteria. Filter 212 provides an indication, or trigger denoting when the packets are received. In one embodiment, controller 206 creates and removes specific filters from filter 212. In this particular example, once a trigger is received, denoting receipt of data packets satisfying the criteria of at least one filter, controller 206 updates the installed profiles 222 of the classifier 214. Operation is dynamic. It is in response to incoming signals. The method and apparatus claims both specifically recite dynamic creation and removal of filters. Applicants' environment is not static like that of Thomas in that Applicant is not concerned with addressing a pre-established hierarchy of layers of filters. Schneider has no concept of changing the filters to be utilized in response to incoming signals.

With respect to the other rejections, it is respectfully submitted that the record does not support the allegations of paragraphs 8-21 of the rejection. The Thomas and Schneider combination can only be applied with hindsight using Applicants' specification as a guide. The following paragraphs are numbered to correspond to the paragraphs of the rejection:

Paragraph 8, 9 and 10: There is no triggering of filters disclosed by "Thomas-Schneider." The filters are there or not there as taught by Thomas and Schneider.

Paragraph 11: In Figure 3, Thomas only discloses a remote device from which policy queries as defined by Thomas may be made. The filters themselves are not stored

in a remote device. Thomas-Schneider did not teach liberating apparatus resources that are no longer needed. At column 26, lines 50-67, Schneider only states that a packet filter will either accept or discard source and destination addresses an internet packet headers. There is no suggestion of liberating resources. Thomas-Schneider do not provide the lead concept of inserting or removing resources that work dynamically as specifically both disclosed and recited by Applicants. It is thus submitted that the rejections merit withdrawal and favorable action is therefore earnestly solicited.

CONCLUSION

Applicant respectfully submits that the rejections warrant withdrawal. In order to advance progress of the case, the undersigned would welcome a telephone communication from the Examiner as to any issues. Favorable action is therefore earnestly solicited.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on: January 2, 2002.

Priscilla W. Anderson 1/2/02
Date

MARKED-UP VERSION SHOWING CHANGES MADE

Please replace the paragraph beginning at page 11, line 12 with the following paragraph:

Similarly, the communication links illustrated in **Figure 1** may be any of a wide range of conventional wireline and wireless communication media, and may be different for different clients, servers, bandwidth brokers and other network devices. For example, a communication link may be a cable, a fiber optic cable, or may represent a nonphysical medium transmitting electromagnetic signals in the electromagnetic spectrum. Additionally, a wireless communication link may also include any number of conventional routing or repeating devices, such as satellites or electromagnetic signal repeaters or basestations. [Irregardless] irrespective of the form of communication medium, data is typically transferred between network elements using any of a number of data communication protocols. In accordance with such data communication protocols, data is generally transferred between network elements in units commonly referred to as packets, frames, datagrams and the like. Typically, each packet includes data, a source address and a target address. As will be described in greater detail below, additional control information, generally included in a header, may also be included in the packet. The number of bytes of data contained within a packet is dependent upon the communication resources of the client, the host and the network protocol employed.

Please replace the paragraph beginning at page 13, line 20 with the following paragraph:

Filter(s) **212** and classifier **214** are employed to identify incoming data traffic adhering to admission policy criteria and marks the data packets with an appropriate routing classification in accordance with a predetermined differentiated services admission policy. That is, filter **212** provides an indication, or trigger, denoting when data packets are received that satisfy filter criteria. In accordance with one aspect of the present invention, the filters populating filter(s) **212** are dynamically provisioned on network interface **204** by controller **206** in accordance with a admission control policy. In one embodiment, controller **206** creates and removes specific filters from filter **212** in response to control messages from a remote bandwidth broker, e.g., bandwidth broker

126. In an alternate embodiment, controller **206** is a bandwidth broker and creates/removes specific filters from filter **212** on its own accord, in furtherance of an admission control policy. Once in place, filter **212** issues a trigger message to controller **206** when data packets are received satisfying the criteria of an installed filter.

Please substitute the following paragraph for the paragraph beginning on page 19, line 3.

If transmission is complete, controller **206** makes a determination of whether to remove the classifier profile **222**. In one embodiment, for example, controller **206** makes this determination in accordance with the service level it supports. For example, if profile **222** supports the highest service level, and the filter has not yet expired for that service level, controller **206** maintains the profile to support the service level with minimal delay. If however, profile **222** corresponds to a lower service level, controller **206** may remove the profile, even though the corresponding filter remains in place, to liberate network interface **204** resources. If, in **322**, a determination is made to remove the filter, controller **206** instructs classifier **214** to purge filter **222**, and an update message is sent at block 324 to bandwidth broker **126** denoting the update. Subsequently, the process continues with block 301.

Please substitute the following paragraph for the paragraph beginning on page 19, line 13.

Thus, in accordance with the above example, controller **206** is responsible for the provision of filters **212** and classifier profiles **222** necessary to support differentiated services via network edge device **110**. In one embodiment, controller **206** relies on the information provided by a remote bandwidth broker **126** or some other policy server. In an alternate embodiment, controller **206** accesses a co-located admission policy database autonomously. [Irregardless] Irrespective of where the admissions policy database is located, access to the differentiated services of core device **108** is dynamically controlled through the selective provision of trigger filters and classifier profiles on network devices, e.g., network device **110**, as appropriate.